AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An image processing method extracting a specific number of representative colors from colors of a small region on a color image, the image processing method comprising the steps of:

calculating ~~statistics~~ variances of the small region in color for respective color components;

selecting one color component with the largest variance among the color components as a target component ~~according to a comparison between the statistics~~;

dividing the small region into two sections ~~according to a reference of the target component~~ by preparing region information indicating a section to which each of picture elements within the small region belongs, according to whether data in the target component of each picture element is more than an average of data in the target component of the small region or not; and

extracting a representative color for each section from colors of the section according to the region information and data in the respective color components of picture elements in the section.

2. (Previously Presented) An image processing method according to claim 1, further comprising the step of setting each section as a small region if the number of the sections is less than the specific number.

Claims 3-4 (Cancelled)

5. (Previously Presented) An image processing method according to claim 1, further comprising the steps of:

computing color differences among data included in the small region; and

determining the specific number according to the color differences.

6. (Previously Presented) An image processing method according to claim1, further comprising the steps of:

extracting the number of colors included in the small region;

comparing the extracted number of colors and the specific number; and

setting the extracted number of colors as the specific number when the extracted number of colors is less than the specific number.

Claims 7-8 (Cancelled)

9. (Previously Presented) An image processing method according to claim 1, further comprising the steps of:

preparing region color data, which is a pair of the data of the representative colors and region information indicating sections of which the representative colors are extracted from colors; and

increasing the number of representative colors sequentially.

10. (Previously Presented) An image processing method according to claim 9, further comprising the step of preparing a displayed image for a user from the region color data by selecting the number of the representative colors.

11. (Previously Presented) An image processing method according to claim 9, further comprising the step of transmitting the region color data by increasing the number of the representative colors sequentially.

12. (Previously Presented) An image processing method according to claim 9, further comprising the steps of:

receiving the region color data by increasing the number of the representative colors sequentially; and

displaying the color image for a user by increasing the number of the representative colors sequentially per the receiving.

13. (Previously Presented) An image processing method according to claim 9, further comprising the steps of:

setting the number of colors required for displaying an image for a user;

extracting plural representative colors from the region color data according to the required number of colors; and

deriving the color data of the displayed image according to the plural representative colors.

14. (Previously Presented) An image processing method according to claim 1, further comprising the step of:

switching a mode between a color mode and a monochrome mode, and wherein when the mode is switched to the monochrome mode, a specified color data is selected instead of the target component and the small region is divided into two sections according to a reference value of the selected color data instead of the target component.

15. (Original) An image processing method according to claim 14, wherein the reference value is an average.

16. (Currently Amended) An image processing apparatus extracting a specific number of representative colors from colors of a small region on a color image, the image processing method comprising:

statistic calculating means for calculating ~~statistics~~ variances of the small region in color for respective color components;

dividing means for selecting one color component with the largest variance among the color components as a target component ~~according to a comparison between the statistics~~ and dividing the small region into two sections ~~according to a reference of the target component~~ by preparing region information indicating a section to which each of picture elements within the small region belongs, according to whether data in the target component of each picture element is more than an average of data in the target component of the small region or not; and

representative-color extracting means for extracting a respective color for each section from colors of the section according to the region information and data in the respective color components of picture elements in the section.

17. (Previously Presented) An image processing apparatus according to claim 16, further comprising setting means for setting each section as a small region when the number of the sections is less than the specific number.

Claims 18-19 (Cancelled)

20. (Previously Presented) An image processing apparatus according to claim 16, further comprising:

color-difference detecting means for computing color differences among data included in the small region; and

number-of-representative-color determining means for determining the specific number according to the color differences.

21. (Previously Presented) An image processing apparatus according to claim 16, further comprising:

number-of-color extracting means for extracting the number of colors included in the small region; and

number-of-representative-color setting means for, when the extracted number of colors is smaller than the specific number by comparing the number of colors, setting the extracted number of colors as the specific number.

Claims 22-23 (Cancelled)

24. (Previously Presented) An image processing apparatus according to claim 16 further comprising:

region-color-data preparing means for preparing a region color data combining color data of the representative colors and region information indicating sections of which the representative colors are extracted from colors, by increasing the number of representative colors sequentially.

25. (Previously Presented) An image processing apparatus according to claim 24, further comprising displayed image preparing means for preparing a displayed image for a user from the region color data by selecting the number of the representative colors.

26. (Previously Presented) An image processing apparatus according to claim 24, further comprising transmitting means for transmitting the region color data by increasing the number of the representative colors sequentially.

27. (Previously Presented) An image processing apparatus according to claim 24, further comprising:

receiving means for receiving the region color data by increasing the number of the representative colors sequentially; and

displaying means for displaying the color image for a user by increasing the number of the representative colors sequentially at the time of the receiving.

28. (Previously Presented) An image processing apparatus according to claim 24, further comprising:

number-of-color setting means for setting the number of colors required for displaying an image for a user;

representative-color extracting means for extracting plural representative colors from the region color data according to the required number of colors; and

displayed-color deriving means for deriving the color data of the displayed image by combining the plural representative colors.

29. (Previously Presented) An image processing apparatus according to claim 16, further comprising:

mode switching means for switching a mode between a color mode and a monochrome mode, and

wherein when the mode is switched to the monochrome mode, a specified color data is selected instead of the target component and said dividing means divides the small region into two sections according to a reference value of the selected color data instead of the target component.

30. (Original) An image processing apparatus according to claim 29, wherein the reference value is an average.

31. (Currently Amended) An image processing apparatus provided with a transmitting device transmitting data of a color image divided into plural small regions, and a receiving device receiving the transmitted data and restoring and displaying the color image corresponding to the data, wherein the transmitting device comprising:

statistic calculating means for calculating ~~statistics~~ variances of the small region in color for respective color components;

dividing means for selecting one color component with the largest variance among the color components as a target component ~~according to a comparison between the statistics~~ and dividing the small region into two sections ~~according to a reference of the target component~~ by preparing region information indicating a section to which each of picture elements within the small region belongs, according to whether data in the target component of each picture element is more than an average of data in the target component of the small region or not; and

representative-color extracting means for extracting a respective color for each section from colors of the section according to the region information and data in the respective color components of picture elements in the section;

region-color-data preparing means for preparing a region color data combining color data of the representative colors and region information indicating sections of which the representative colors are extracted from colors; and,

transmitting means for transmitting the region color data, and,

the receiving device comprising:

receiving means for receiving the region color data by increasing the number of the representative colors sequentially; and

displaying means for displaying the color image for a user by increasing the number of the representative colors sequentially at the time of the receiving.